PPG Aerospace
Transparencies

TECHNICAL DATA

WINDSHIELDS

F/A-18 Hornet and Super Hornet

U.S. Navy Photo Mass Communication Spc. 3rd Class Joshua Card

Windshield	
Features	**Benefits**
Original-Equipment Supplier	• Proven reliability • Latest design and upgrades • Worldwide customer and technical support
Superior Bird-Strike Performance	• Windshield and frame system rated to withstand impact by 4-pound bird at 475 knots
Clear and Night Attack Options	• Superior performance • Environmental durability • Superior light transmission • Superior night vision imaging system
Advanced Composite Laminate	• Combines material properties for optimum impact and environmental performance • Superior optics with low angular deviation in optical area • Lightweight • Upgraded materials improve service life
Service Flexibility	• Quick change-out and repair capability • No frame removal necessary for transparency panel replacement • Molded gasket and nut plates facilitate quick change-out • Refurbished frames and hardware kits available for field installation

In response to a need for improved aircrew safety and maintainability, PPG Aerospace designed and developed the advanced-design windshield for the U.S. Navy's F/A-18 aircraft. PPG's advanced-design transparency is rated to withstand the impact of a four-pound bird at 475 knots. An additional benefit is the quick change-out feature arising from improved interchangeability and the use of modern gaskets and fasteners. In sum, these features and benefits enable superior operational and environmental performance and lower life-cycle cost.

Military Transparencies Leader

A leading and experienced manufacturer of windshields, canopies, windows, blast barriers and specialty transparencies for military applications, PPG has a broad range of capabilities to design and produce advanced-technology transparencies that meet the demanding requirements of military air and surface operations.

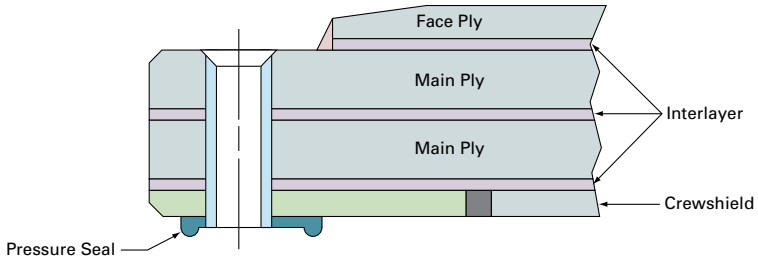
PPG offers a variety of transparent structural materials tailored to aerospace applications.

Plastic substrate materials currently in production include acrylic that is strong and lightweight, and polycarbonate that has superior impact resistance and a high strength-to-weight ratio. PPG also is developing exciting, new transparent structural materials with superior structural properties that have the potential to replace both acrylic and polycarbonate.

For example, new OPTICOR™ advanced transparency material provides unprecedented performance and unique design capabilities that meet the demanding needs of today's aerospace industry. This innovative high-performance, proprietary PPG plastic is superior to other commonly used aerospace plastics, offering exceptional resistance to abrasion, chemicals, ultraviolet degradation and fire. Because it resists crazing, *Opticor* advanced transparency material maintains optical clarity. It has lower density than stretched acrylic and low moisture absorption, and it is an excellent substrate for metallic and nonmetallic coatings. Unique non-uniform shapes can be created with *Opticor* advanced transparency material.

F/A-18 HORNET AND SUPER HORNET

Windshield



Part Numbers

	U.S. National Stock Number	OEM Part Number	PPG Part Number	Services
F/A-18 C/D Aircraft				
Laminated Windshield Panel, Clear	1560-01-529-7053	74B350058-117	171500-69	New
Framed Clear Windshield Assembly	1560-01-411-3380	74A350002-1027	271520-57	Refurbishment
Framed Night-Attack Windshield Assembly	1560-01-447-1104	74A350002-1025	271520-61	Refurbishment
F/A-18 C/D/E/F/G Aircraft				
Laminated Windshield Panel, Night Attack	1560-01-565-5044	74B350058-119	171500-71	New
Clarity Transparency Cleaning System			599306	

PPG proprietary interlayers bond the plies together and provide ballistic properties, bird-impact resistance and pressure "fail-safe" capability.

Proprietary electrical heating systems provide anti-ice/antifog protection.

PPG advanced coatings and technologies help protect transparencies and aircrews from various operational or environmental threats, and provide low-observable performance, solar heat reduction, laser protection, and electromagnetic pulse (EMP) and electromagnetic interference (EMI) shielding. Such technologies are designed to be compatible with night vision systems and other optical requirements.

PPG transparencies have flown and participated in numerous air and surface military missions. The company is a leader in its transparency technical capabilities and infrastructure, OEM and operator support, and ability to supply parts worldwide on a timely and affordable basis.

CLARITY® Transparency Cleaning System

PPG has developed *Clarity* Transparency Cleaning System for easy removal of debris on plastic transparencies while adding protection to facilitate future cleanings and potentially increase service life. In a two-part process, a wet wipe saturated with a proprietary blend is applied to the substrate to remove superficial debris, and then a dry wipe is used to take off any haze. Kits containing both types of wipes are available. Contact your PPG Aerospace sales representative for more information and to order *Clarity* Transparency Cleaning System.

Ordering Information

Orders may be placed through PPG Aerospace's worldwide network of application support centers (ASCs). For the ASC nearest you, visit **www.ppgaerospace.com**.

In North America, call toll-free +1 (800) AEROMIX.

Pricing, warranty and delivery details are available from your PPG Aerospace sales representative.

PPG Aerospace
Transparencies

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